



Muon Campus AIP

Change Request Form

CR#: RRF001

1) DATE: 8/22/13

2) WBS: RRF1

3) Originator: Ken Domann

4) WBS Description of Primary Affected Tasks: Recycler RF AIP

5) Technical Description & Primary Motivation for Change: The approved Recycler RF Project Plan baselined this AIP @\$8,601,165 TPC. This included \$6,616,280 of budgeted work (TEC) plus \$1,984,885 of contingency. These values were extracted from the schedule which is contained in Microsoft Project. After the schedule, labor and M&S data was imported into Cobra the values for TEC and contingency changed. This result was for the following reasons: (1) After the Project Plan was submitted for approval, minor revisions were made to the labor and M&S to further refine the plan; (2) It was realized that the ferrite order would be higher than originally estimated so the contingency set aside for this purchase was added to the budgeted amount; (3) Although the Muon AIP's are not subject to the TSCS overhead charge (3.7%), this indirect value is in the Cobra rate calculations. Because this rate is compounded with other rates, the net effect is around 6%. This results in a reduction in contingency and an increase in the budget. Since the AIP's will not be charged for TSCS, the contingency is "hidden" in the indirect budget; (4) The original schedule and budget profiles submitted in the Project Plan assumed RF installation in the FY15 shutdown. Funding constraints have pushed this installation to the FY16 shutdown. The result is an increase in escalation costs.

6) Assessment of Cost Impact (Use attachments if needed): See above analysis of cost impact. See attachment #1 for details.

7) Assessment of Schedule Impact (Use attachments if needed): See attachment #2.

8) Secondary Impact & Other Comments: Because the entire Muon Campus was impacted by the funding changes, delays in the RF installation which would otherwise impact the g-2 schedule, are still in line with their needs.

9) Approvals:

AIP Project Manager:

Signature/Date:

08/22/13

AIP Project Coordinator:

Signature/Date:

8/22/13

AD Div Director:

Signature/Date:

8-22-13

Directorate:

Signature/Date:

8/22/13

Attachment #1
Recycler RF AIP Budget Comparison

WBS	Name	Original Project Plan (PP) Budget (w/o Cont)	New Budget (w/o Cont)	Original PP Contingency **	New Contingency **	Original PP TPC	New TPC
RRF1	RRF1 Recycler RF AIP	\$6,616,280	\$6,971,480	\$1,984,885	\$1,629,685	\$8,601,165	\$8,601,165
RRF1.01	RRF1.01 Recycler Management	\$248,536	\$351,241				
RRF1.01.02	RRF1.02 RF	\$6,367,744	\$6,620,239				
RRF1.01.02.01	RRF1.02.01 Recycler Cavities & Power Amplifiers	\$5,273,638	\$5,502,642				
RRF1.01.02.02	RRF1.02.02 Recycler RF Cooling	\$500,836	\$516,967				
RRF1.01.02.03	RRF1.02.03 Recycler Low Level RF	\$200,636	\$206,339				
RRF1.01.02.04	RRF1.02.04 Recycler RF Installation	\$392,634	\$394,291				
** Contingency no longer maintained at detail level							

Attachment #2 Recycler RF Milestones - FY16 Installation

Uniq	WBS	Name	Date	2015				2016				2017
				Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q1
92	RRF1.01.01.01.01	Start Recycler AIP	6/3/13									
137	RRF1.01.01.01.15	PO for Fertiles Awarded	7/1/13									
94	RRF1.01.01.01.08	Finish RF Cavity Ferrite Cooling Tests	3/18/14	◆								
127	RRF1.02.01.13	RRF New Fertiles Received	6/30/14		◆							
136	RRF1.01.01.01.14	PO for Cavity Parts Awarded	12/9/14				◆					
128	RRF1.02.01.14	RRF Cavities Assembly Complete	1/12/16									
95	RRF1.01.01.01.09	Finish Cavity Assembly	1/20/16					◆	◆			
134	RRF1.01.01.02.01	Mu2e Cavities Assembled (Mu2e Interface)	3/30/16						◆			
130	RRF1.02.03.06	RRF Low Level RF Assembly Complete	6/21/16									
88	RRF1.01.01.01.06	Start FY16 SD	7/1/16									
96	RRF1.01.01.01.10	Begin Tunnel Installation	7/1/16									
98	RRF1.01.01.01.12	Begin Service Bldg Installation	7/1/16									
129	RRF1.02.02.05	RRF Water Skid Assembly Complete	8/17/16									
97	RRF1.01.01.01.11	Finish Tunnel Installation	8/31/16									
99	RRF1.01.01.01.13	Service Bldg Installation Complete	8/31/16									
131	RRF1.02.04.08	RRF Installation Complete	8/31/16									
89	RRF1.01.01.01.07	Finish FY16 SD	9/1/16									
135	RRF1.01.01.02.02	Recycler AIP Complete (g-2 Interface)	9/30/16									◆

Project: Recycler RF AIP 14Mar2013
Date: 8/22/13

Task



Progress



Milestone

Summary



Attachment #2 Recycler RF Milestones - FY15 Installation

Uniq	WBS	Name	Date	2013				2014				2015			
				1	2	3	4	1	2	3	4	1	2	3	4
92	RRF1.01.01.0'	Start Recycler ALP	5/1/13		◆										
122	RRF1.01.01.2i	PO for Ferrites Awarded	5/30/13		◆										
94	RRF1.01.01.0i	Finish RF Cavity Ferrite Cooling Tests	12/20/13												
123	RRF1.01.01.2'	PO for Cavity Parts Awarded	12/23/13												
93	RRF1.01.01.0i	RRF New Ferrites Received	5/29/14						◆						
95	RRF1.01.01.1i	RRF Cavities Assembly Complete	1/26/15										◆		
124	RRF1.01.01.1'	Finish Cavity Assembly	2/2/15										◆		
127	RRF1.01.01.1'	RRF Water Skid Assembly Complete	2/19/15										◆		
121	RRF1.01.01.0:	Mu2e Cavities Assembled (Mu2e Interface)	4/13/15										◆		
88	RRF1.01.01.0i	Start FY15 SD	6/1/15										◆		
96	RRF1.01.01.1i	Begin Tunnel Installation	6/1/15										◆		
98	RRF1.01.01.1'	Begin Service Bldg Installation	6/1/15										◆		
126	RRF1.01.01.1'	RRF Low Level RF Assembly Complete	6/22/15										◆		
97	RRF1.01.01.1i	Finish Tunnel Installation	7/7/15										◆		
99	RRF1.01.01.1i	Service Bldg Installation Complete	7/13/15										◆		
89	RRF1.01.01.0'	Finish FY15 SD	7/31/15										◆		
100	RRF1.01.01.1i	Recycler ALP Complete (g-2 Interface)	8/12/15										◆		

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Task

Progress

Milestone

Summary